

# IMPACT OF NUTRITION EDUCATION ON KNOWLEDGE OF TRIBAL WOMEN

## D. V. SINGH<sup>1</sup> & ANUPAMA SAMAL<sup>2</sup>

<sup>1</sup>Senior Scientist & Head, Kandhamal, OUAT, Bhubaneswar, India <sup>2</sup>Scientist (Home Science) KVK, Kandhamal, OUAT, Bhubaneswar, India

### ABSTRACT

The study was conducted in purposely selected G Udayagiri block of Kandhaml district of Odisha to check the nutritional knowledge level regarding various aspects of nutrition. Three villages namely Gambuli, Kalanaju and Siriki were selected purposively because of linkase facility of the Krishi Vigyan Kendra from G Udayagiri block for the present study. Total 90 tribal women who were ready to participate and interested to be involved in training programme for their self empowerment were purposively selected for this study. Study revealed that tribal women in selected villages were having low awareness in relation to health and nutrition aspect. Majority of the respondents were having improvement habit in the fuel consumption pattern, balanced diet and conservation of nutrients. The impact of the training is that now majority of the tribal women have the smokeless chulha to cook their food. Health problem is also now decreasing after using smokeless chulha. Most of the respondent from the study areas said that they are very comfort with smokeless chulha. It was also noticed that tribal women have motivated and guided efficiently and desirable changes in the behavior of tribal women regarding health and nutrition aspect would be bringing improvement in the nutritional status of the tribal community.

KEYWORDS: Education, Effect, Knowledge, Nutrition, Tribal Women

Received: Sep 21, 2016; Accepted: Oct 07, 2016; Published: Oct 20, 2016; Paper Id.: IJFSTDEC20161

## INTRODUCTION

In India food and nutrition problems continue to be formidable. Malnutrition and under nutrition is widely prevalent in the urban, rural, tribal and slums areas of the country, especially amongst vulnerable selection of the population namely the pre-school, school going children, expectant and nursing women. Lack of sanitation hygiene and knowledge about nutrition among the affected groups as well as widespread of resources area the major factors contributing to such nutrition deficiencies. Malnutrition and under nutrition can be overcome by increasing the nutrition knowledge of rural women because a women plays in important role in the selection, preparation and serving of food of the members of the family. Nutritional knowledge have great important in proper management of food, application of balanced diet and specific requirements of different nutrition for people of different age groups. Nutrition education should be practical and adopted to suit the socio- economic conditions, food habits and local food resource. Keeping in view the present study has been undertaken (i) to find out the existing nutritional knowledge in tribal women at various levels. (ii) to develop a nutritional intervention programme for farm women empowerment in tribal area. (iii) to assess the knowledge gain through intervention programme by pre and post training.

## RESEARCH METHODOLOGY

The present study was conducted in G Udayagiri block of Kandhamal district of Odisha. Out of twelve blocks G Udayagiri block was selected purposively. From G Udayagiri block three villages namely Gambuli, Kalanaju and Siriki were selected for the present study. Tribal women in selected village were having low awareness in relation to health and nutrition. In G Udayagiri block there are 83 revenue villages. Out of them three village were selected purposively because of linkase facility of the Krishi Vigyan Kendra. Thirty rural women were selected from each village. Thus total 90 tribal women who were ready to participate and interested to be involved in training programme for their self empowerment were purposively selected for this study. The women aged 20 to 40 years were selected belonging to middle to low economic group. As a preliminary step good rapport was established with the key leaders, serpanch & women of the village. A baseline survey was conducted by making home visits and interviews to elicit information on socio - economic background of the families.

A semi structured pre tested questionnaire was designed and administered to gather data on socio demographic profile and to check the nutritional knowledge regarding various aspects of nutrition, process to deal with scientific approach is followed to accomplish the objective of the study.

S. No.	Area of Training	Training Method	Aids
1.	Solar cooking	Group discussion	Pictures display
2.	Cooking on smokeless Chulha	Group discussion	Group discussion
3.	Concept of food &nutrition	Group discussion /Training method	Exhibition & Charts
4.	Balance diet	Group discussion	Poster & charts
5.	Nutrients present in food	Demonstration of eat well plate	Poster & charts
6.	Importance of fruits & vegetables in daily diet	Group discussion / Training methods	Folder, leaflet & board
7.	Cooking methods	Group discussion & demonstration	Pictures & charts
8.	Preserving food techniques	Demonstration & question, Answer session	Leaflet
9.	Storage facility	Group discussion	Booklet, folder
10.	Measure to preserve nutrients & to increase the nutritional values	easure to preserve nutrients & Group discussion / training method	
11.	Nutritious recipes	Demonstration and group work	Folder & pamphlet

**Table 1: Developing a Nutrition Intervention Programme** 

The developed training was pre tested with 30 rural women from G Udayagiri block of Kandhamal district of Odisha. Purpose of pre testing was to check the clarity of visual message, content etc. The questions were grouped under one heading for getting the scientific information on various nutrition related topics. Different training methods supplemented with visual aids were used.

### RESULTS AND DISCUSSIONS

Table 2 showing data in gain in knowledge regarding fuel consumption pattern. The data indicates that maximum 37.78 per cent difference in gain in knowledge was found in Gambuli village followed by 23.34 per cent in Siriki and 17.77 per cent in Kalanaju village. The highest awareness related to fuel consumption pattern was found in village Gambuli after training 62.22 per cent. The lowest awareness related to consumption pattern was found in village Siriki prior to training 18.88 per cent.

Table 2: Gain in Knowledge Regarding Fuel Consumption Pattern

S. No.	Villago	Pre Training		Post Training		Gain In Knowledge	
S. NO.	Village	F	%	F	%	F	%
1.	Gambuli	22	24.44	56	62.22	34	37.78
2.	Kalanaju	36	40.00	52	57.77	16	17.77
3.	Siriki	17	18.88	38	42.22	21	23.34

After discussion with tribal women regarding fuel consumption pattern it is found that due to unaware about proper fuel consumption and lack of education, tribal do not want to bring change in their traditional pattern. Mama Pradhan women were more educated. There was no much difference in gain in knowledge (17.77%) contradicting with the results of other two villages.

Table 3: Gain in Knowledge Regarding Health Hazards by fuel

S. No.	Village	Pre Training		Post	Training	Gain In Knowledge	
S. 110.	village	F	%	F	%	F	%
1.	Gambuli	24	26.66	68	75.55	44	48.89
2.	Kalanaju	29	32.22	72	80.00	55	47.78
3.	Siriki	31	34.44	68	75.55	37	41.11

The data of table 3 shows that very small group of respondents were aware regarding health hazards by fuel prior to conduct training programme. Very less numbers of the respondents were aware regarding health hazards by fuel only 26.66 per cent in Gambuli village, 32.22 per cent in Kalanaju village and 34.44 per cent in Siriki village prior to conduct training programme. Most of the respondents 80.00 per cent were aware related to health hazards by fuel was found in Kalanaju village, 75.55 per cent in both of rest two villages after training.

The gain in knowledge was found high in Gambuli (48.89%) village, when adopting smokeless chulha. In the study of pandey (2001) it was observed that coal smoke had varied profile of metal emission and domestic coal emits metals in quantities which is potentially harmful to human health.

The impact of the training is that now majority of the tribal women have the smokeless chulha to cook their food. Health problem is also now decreasing after using smokeless chulha. Most of the respondent from the study areas said that they are very comfort with smokeless chulha.

Table 4: Gain in Knowledge Regarding Balanced Diet

S. No.	Villago	Pre Training		Post	Training	Gain In Knowledge	
S. 110.	No. Village	F	%	F	%	F	%
1.	Gambuli	15	16.66	76	84.44	61	67.78
2.	Kalanaju	21	23.33	86	95.55	65	72.22
3.	Siriki	07	7.77	59	65.55	52	57.78

Table 4 showing data regarding gain knowledge about balanced diet. The data showed that maximum 72.22 per cent difference in gain in knowledge was found in Kalanaju village followed by 67.78 per cent in Gambuli village and 57.78 per cent in Siriki village. Most of the respondents were aware about balanced diet in Kalanaju village after training 95.55 per cent followed by 84.44 per cent in Gambuli village and 65.55 per cent in Siriki village. The lowest awareness related to balanced diet was found in village Siriki prior to training 07.77 per cent.

S. No.	Villago	Pre Training		Post	Training	Gain In Knowledge	
5. 110.	Village	F	%	F	%	F	%
1.	Gambuli	24	26.66	71	78.88	47	52.22
2.	Kalanaju	32	35.55	82	91.11	50	55.56
3.	Siriki	14	15.55	69	76.66	55	61.11

Table 5: Gain in Knowledge Regarding Cooking Methods

Table 5 revealed that the gain in knowledge about the cooking techniques the slight increased variation in difference was found in pre and post phase in three different villages. It was found that in post study women skills in cooking techniques was improving continuously. The results indicated that prior to training higher knowledge (35.55%) was found in village Kalanaju villages. The lowest knowledge regarding cooking method was found in village Siriki prior to training 15.55 per cent. Most of the respondents were gain knowledge about cooking method in Kalanaju village after training 91.11 per cent followed by 78.88 per cent in Gambuli village and 76.66 per cent in Siriki village. The study showed that maximum 61.11 per cent difference in gain in knowledge was found in Siriki village followed by 55.56 per cent in Kalanaju village and 52.22 per cent in Gambuli village.

Khetrapaul, et. al. (1996) observed that majority of women were unaware about different food sources, loss of nutrients during cooking. It was felt the need to educate most of the housewives through various communication media and aids.

S. No.	Village	Pre '	Pre Training		Training	Gain In Knowledge	
		F	%	F	%	F	%
1.	Gambuli	26	28.88	65	72.22	39	43.34
2.	Kalanaju	29	32.22	84	93.33	55	61.11
3.	Siriki	10	11.11	79	87.77	69	76.66

**Table 6: Gain in Knowledge in Conserving Nutrients** 

Table 6 showing data regarding gain in knowledge in conserving nutrients. The data showed that maximum 76.66 per cent difference in gain in knowledge was found in Siriki village followed by 61.11 per cent in Kalanaju village and 43.34 per cent in Gambuli village. Most of the respondents were aware about conserving nutrients in Kalanaju village after training 93.33 per cent followed by 87.77 per cent in Siriki village and 72.22 per cent in Gambuli village. The lowest awareness related to conserving nutrients was found in village Siriki prior to training 11.11 per cent.

Table 7: Gain in Knowledge Regarding to Increase Nutritive Value of Food

S. No.	Village	Pre Training		Post	Training	Gain In Knowledge	
S. 110.	village	F	%	F	%	F	%
1.	Gambuli	14	15.55	72	80.00	58	64.45
2.	Kalanaju	17	18.88	80	88.88	63	70.00
3.	Siriki	19	21.11	54	60.00	35	38.89

Table 7 showing data in gain in knowledge regarding to increase nutritive value of food. It was clearly found that in post study women were more aware about nutritive value of food. The results indicated that prior to training higher knowledge (21.11%) was found in village Siriki villages regarding nutritive value of food followed by Kalanaju village 18.88 per cent and Gambuli villahe 15.55 per cent. Majority of the respondents were gain knowledge about nutritive value of food in Kalanaju village after training 88.88 per cent followed by 80.00 per cent in Gambuli village and 60.00 per cent in Siriki village.

(Adish, 1999). Women from village Siriki cooked food in iron pots they scored higher in pre test. Gain in knowledge regarding increase nutritive value of food was very high 70.00% in women from village Kalanaju followed by 64.54 per cent in Gambuli village and 38.89 per cent in Siriki village. After the training programme the improvement was observed regarding good food practices. Majority of the women cooked food with covered pan and included different combination of cereals, minor millets and pulses in their family food.

### **CONCLUSIONS**

The impact of the training is that now majority of the tribal women have the smokeless chulha to cook their food. Health problem is also now decreasing after using smokeless chulha. Most of the respondent from the study areas said that they are very comfort with smokeless chulha. Majority of the respondents were having improvement habit in the fuel consumption pattern, balanced diet and conservation of nutrients. It was also noticed that tribal women have motivated and guided efficiently and desirable changes in the behavior of tribal women regarding health and nutrition aspect would be bringing improvement in the nutritional status of the tribal community. Nutritional knowledge have great important in proper management of food, application of balanced diet and specific requirements of different nutrition for people.

### REFERENCES

- 1. Adish, A. A. (1999). Effect consumption of food cooked in iron pots on iron status and group of young children. Lancet, Feb 27, PP 353.
- 2. Amine, E. S. (2013). The assessment of nutritional status. European journal of clinical nutrition, 64:16-22.
- 3. Bogue, J and Troy, M. (2008). A piolot study to examine the effects of nutrition education intervention about nutritional knowledge behaviours and effects expectations in urban and rural areas population. J. of Nutrition education and behaviour. 78(4):216-222.
- 4. Brannon, C. A. (2007). Ancient and alternative grains, Today's dietitian. 9(5):10.
- 5. Gupta, M; Singhal, A and Gain, S. (2011). Assessment of training needs of farm women in nutrition. Raj. J. extn. edu. 19: 222-225.
- 6. Khetarpura, N.; Grover, I and Boora, P. (1996). A study on the extent of nutritional knowledge of housewives. Annals of agri, Bio-research 1-2. PP 217-223.
- 7. Pandey, M. (2001). Birth weight and exposure to kitchen wood smoke during pregnancy in rural Guatemala. Environmental health perspect. Jan, 110(1), PP 109-114.
- 8. Kaur, S and Virk, B. (2014). A comparative study-Impact of nutrition education on dietary fiber knowledge in urban and rural women of Nainital district, The journal of rural and Agricultural Research, Vol 14(2):97-100.
- 9. Kumara, M.; Srivastava, A. K and Sinha, N. (2010). Extent of knowledge of farm women on nutrition, Indian Res. J. extn. edu. 10 (1):65-68.
- 10. Santhi, P.; Sathyava thimuthu and Bhuvaneswari, K. (2013). Impact of transfer of Health and Nutrition technologies on empowerment of rural women in developing countries, International journal of Maternal and child health. 1 (1):1-6.
- 11. Srivastava, R and Rankawat, K. (2012). Impact of nutritional education on rural women of jodhpur region. Raj. J. extn. edu. 20. PP 22-26.
- 12. Yoon, H. S and Yang, L. H. (2000). Effect of nutrition education programme on nutrition knowledge dietary diversity of elementary school children's. Journal of communication nutrition. 5(3):513-521.